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CITRUS

## FLORIDA

 AGRICULTURE
## DECEMBER FORECAST <br> MATURITY TEST RESULTS AND FRUIT SIZE



December 10, 2004

## ALL ORANGES LOWERED TO 168.0 MILLION BOXES

The all orange forecast released today by the USDA Agricultural Statistics Board is down a total of 8.0 million boxes to 168.0 million boxes. This reduction of 4.5 percent is the result of changes in the components. Forecasts have been lowered for the early-midseason-Navels, now 86.0 million boxes, and the later maturing Valencia oranges, now 82.0 million boxes. Harvest has begun for all but the Valencia variety. Estimated utilization to December 1, including an allowance for gift fruit, is 5.7 million boxes. In comparison, actual utilization to the same date last season is 24.6 million boxes.

In the past 10 seasons, the December forecast has averaged a 3.2 percent difference from the actual production, with six seasons above and four below. All analysis and changes for this forecast assume that the fruit population (average fruit per tree X number of trees) is correct. Final utilization may differ from these forecasts because of the extreme variabilities in average fruit per tree and assumptions made on loss of fruit following the hurricanes.

## EARLY-MIDSEASONS REDUCED TO 86.0 MILLION BOXES

The early-midseason-Navel orange forecast is down 6.0 million boxes ( 6.5 percent) to 86.0 million boxes. If attained, this will be the smallest crop since 1991-92. The production level passed 100.0 million boxes the following season and has remained above

## Citrus production, December 1, 2004

 FORECASTS BY VARIETIES AND STATES, WITH COMPARISONS| Crop and State | Production |  | Forecast |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $2002-03$ | $2003-04$ | Nov 12, 2004 | Dec 10,2004 |

## Early, Midseason, and Navel Oranges:

| FLORIDA | $\mathbf{1 1 2 , 0 0 0}$ | $\mathbf{1 2 6 , 0 0 0}$ | $\mathbf{9 2 , 0 0 0}$ | $\mathbf{8 6 , 0 0 0}$ |
| :--- | ---: | ---: | ---: | ---: |
| California | 41,000 | 38,000 | 46,000 | 46,000 |
| Texas | 1,350 | 1,420 | 1,650 | 1,650 |
| Arizona | 200 | 300 | 270 | 270 |
| Total Above Varieties | 154,550 | 165,720 | 139,920 | 133,920 |
| VALENCIAS: |  |  |  |  |
| FLORIDA | 91,000 | $\mathbf{1 1 6 , 0 0 0}$ | 84,000 | 82,000 |
| California | 21,000 | 14,000 | 16,000 | 16,000 |
| Texas | 220 | 230 | 250 | 250 |
| Arizona | 270 | 170 | 170 | 170 |
| Total Valencias | 112,490 | 130,400 | 100,420 | 98,420 |
| ALL ORANGES: |  |  |  |  |
| FLORIDA | 203,000 | 242,000 | 176,000 | $\mathbf{1 6 8 , 0 0 0}$ |
| California | 62,000 | 52,000 | 62,000 | 62,000 |
| Texas | 1,570 | 1,650 | 1,900 | 1,900 |
| Arizona | 470 | 470 | 440 | 440 |
| Total All Oranges | 267,040 | 296,120 | 240,340 | 232,340 |

## FORECAST DATES 2004-05 SEASON

January 12, 2005
March 10, 2005
May 12, 2005

February 9, 2005
April 8, 2005
June 10, 2005

$$
\text { July 12, } 2005
$$

that level until this season's hurricane affected crop. Growth rates have slowed and average fruit size is projected to be only slightly more than the minimum of the past 10 seasons. It will take over nine more pieces of fruit to fill a $13 / 5$ bushel box than expected at the beginning of the season. Even though droppage has slowed, it is projected to be slightly higher than the previous 10 season average. These factors have negatively affected the forecast model and resulted in this month's reduction.

Navel fruit size, below average all season, is down from the initial projection and is final. It is estimated to take an additional four pieces of fruit to fill a $13 / 5$ bushel box. Final fruit loss to droppage is slightly higher than the maximum of the previous 10 seasons. The forecast is adjusted downward 17 percent from 3.0 to 2.5 million boxes, the smallest since 1986-87.

Survey Components Used in the Forecast

| Type | Bearing <br> trees | Fruit <br> per <br> tree | Percent <br> droppage | Fruit <br> per <br> box |
| :--- | ---: | :---: | :---: | :---: |
| $(1,000)$ |  |  |  |  |
| Early-Mid | 31,999 | 863 | 14 | 261 |
| Navel | 1,862 | 249 | 21 | 138 |
| Valencia | 41,208 | 529 | 15 | 214 |

## VALENCIA ORANGES NOW 82.0 MILLION BOXES

Two million boxes have been trimmed from the Valencia forecast now at 82.0 million boxes, down 2 percent from last month and 29 percent from last season's record crop. Projected droppage remains at 15.0 percent but average fruit size has been decreased to near the minimum of the previous 10 seasons. This change means over six more pieces of fruit would be required to fill a 90 pound box equivalent.

## FCOJ YIELD 1.56 GALLONS PER BOX

The all orange FCOJ yield of 1.56 gallons per box at 42 degrees Brix is continued. Processing plants are just opening with an estimated 4.5 million boxes processed to December 1.

Florida Department of Agriculture and Consumer Services Division of Marketing and Development

University of Florida Institute of Food and Agricultural Sciences

## GRAPEFRUIT NOW 13.0 MILLION BOXES

The Florida grapefruit forecast for certified utilization (including an allocation of 700,000 boxes of gift fruit and local sales) is decreased 2.0 million boxes to 13.0 million. The reduction includes decreases of one million boxes in both the white and colored varieties. If realized, this forecast will be 68 percent less than harvested last season and the lowest since the $1935-36$ season. Assumptions are made based on the fruit per tree number published in the initial October forecast. Final utilization could differ from the forecast if total fruit loss due to the hurricanes is different than projected.

The white grapefruit forecast is reduced 1.0 million boxes, to 3.0 million. Fruit growth for whites is consistent with last month's projected forecast. The drop rate has been higher than expected, and is now projected at 17 percent, resulting in a decrease in the white portion of the forecast. Estimated utilization to December 1 is slightly over 500,000 boxes, compared to 1.2 million boxes the same time last year.

The colored grapefruit forecast is reduced 1.0 million boxes to 10.0 million. The growth rate has slowed and size is less than projected last month. The number of fruit required to fill a box is now projected at 96 instead of the 88 pieces used in last month's forecast. Fruit drop rates have also increased more than expected, and the percent of loss to harvest is now projected at 18 percent. Estimated utilization to December 1 is 1.5 million boxes compared to 4.4 million boxes the same time last year.

## Citrus production, December 1, 2004

FORECASTS BY VARIETIES AND STATES, WITH COMPARISONS

| Crop and State | Production |  | Forecast |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2002-03 | 2003-04 | Nov 12, 2004 | Dec 10, 2004 |
| -- 1,000 boxes -- |  |  |  |  |
| Grapefruit: |  |  |  |  |
| FLORIDA-All | 38,700 | 40,900 | 15,000 | 13,000 |
| White | 16,200 | 15,900 | 4,000 | 3,000 |
| Colored | 22,500 | 25,000 | 11,000 | 10,000 |
| Texas | 5,650 | 5,700 | 5,900 | 5,900 |
| Arizona | 130 | 140 | 200 | 200 |
| California | 5,600 | 5,400 | 5,200 | 5,200 |
| Total Grapefruit | 50,080 | 52,140 | 26,300 | 24,300 |
| Lemons: |  |  |  |  |
| California | 24,000 | 18,000 | 19,500 | 19,500 |
| Arizona | 3,000 | 3,000 | 2,400 | 2,400 |
| Total Lemons | 27,000 | 21,000 | 21,900 | 21,900 |
| Temples: Florida | 1,300 | 1,400 | 800 | 800 |
| Tangelos: Florida | 2,350 | 1,000 | 1,400 | 1,100 |
| Tangerines: |  |  |  |  |
| FLORIDA-All | 5,500 | 6,500 | 4,700 | 4,500 |
| Early ${ }^{1 /}$ | 3,000 | 3,600 | 2,500 | 2,300 |
| Honey | 2,500 | 2,900 | 2,200 | 2,200 |
| California ${ }^{2 /}$ | 2,800 | 2,700 | 2,900 | 2,900 |
| Arizona ${ }^{2 /}$ | 430 | 690 | 500 | 500 |
| Total Tangerines | 8,730 | 9,890 | 8,100 | 7,900 |

[^0]Survey Components Used in the Forecast

| Type | Bearing <br> trees | Fruit <br> per <br> tree | Percent <br> droppage | Fruit <br> per <br> box |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| $(1,000)$ |  |  |  |  |  |
| White Grapefruit ${ }^{1 /}$ | 2,861 | 109 | 17 | 79 |  |
| Colored Grapefruit | 5,366 | 210 | 18 | 96 |  |

${ }^{1 /}$ Seedless variety only.

## ALL TANGERINES NOW 4.5 MILLION BOXES

The forecast of all varieties of tangerines is decreased 200,000 boxes to 4.5 million. The decrease is in the early tangerine (Fallglo and Sunburst) category, now at 2.3 million boxes. The Honey tangerine forecast remains unchanged at 2.2 million boxes. Fallglo harvest is complete with slightly more than 600,000 boxes estimated to have been used in fresh and processing channels.

Sunburst harvest is underway for the holiday season with commercial, gift fruit, and fundraising shipments. Estimated utilization of all early tangerines to December 1 is 1.3 million boxes, a total of 900,000 boxes less than actual utilization for the same time in the 2003-04 season. The average fruit size of Sunburst tangerines is slightly smaller than projected and droppage is slightly higher.

The Honey tangerine forecast remains the same as last month at 2.2 million boxes. Average fruit growth and drop rates are consistent with last month's projections. The average size ties with the second smallest in a 10 year series and is expected to be near the smallest at harvest. Droppage, projected at 40 percent for the season, is slightly above average.

## TEMPLES AT 800,000 BOXES

The Temple forecast is unchanged at 800,000 boxes. If attained, this would be the smallest amount since the 1954-55 season. Fruit drop rates continue as projected last month. Fruit size is less than projected last month, however not severely enough to alter the forecast.

## TANGELOS DOWN TO 1.1 MILLION BOXES

The tangelo forecast is reduced 300,000 boxes to 1.1 million. If realized, it will be only 10 percent larger than last year's tie for a 30 year low with the 1964-65 season utilization of 1.0 million boxes. Fruit size is less than projected last month, and the drop rate is more than projected last month. Both of these changes are included in the forecast model and contribute to this month's downward adjustment. Estimated utilization to December 1 is almost 200,000 boxes, equal to the same time last year.

Unadjusted Maturity Tests: Average of regular bloom fruit from sample
groves, 2003-04 and 2004-05 seasons

| Fruit type (No. groves) test date | Acid | $\begin{aligned} & \text { Solids } \\ & \text { (Brix) } \end{aligned}$ | Ratio | Unfinished juice per box | Solids per box |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003-04 2004-05 | 2003-04 2004-05 | 2003-04 2004-05 | 2003-04 [2004-05 | 2003-04 2004-05 |
|  | $\begin{aligned} & \text { Percent } \\ & \text { Juice and } \end{aligned}$ | $\begin{aligned} & \text { Percent } \\ & \text { solids per box are u } \end{aligned}$ | djusted and not | Pounds parable to plant t | Pounds results. |

Early (83-108)

| Sep 1 | 1.23 | 1.62 | 9.32 | 9.30 | 7.66 | 5.83 | 42.77 | 42.30 | 3.98 | 3.93 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Oct 1 | 0.86 | 1.09 | 9.71 | 9.27 | 11.56 | 8.65 | 49.60 | 48.57 | 4.81 | 4.50 |
| Nov 1 | 0.74 | 0.82 | 10.44 | 9.85 | 14.38 | 12.23 | 51.32 | 51.88 | 5.36 | 5.11 |
| Dec 1 | 0.66 | 0.73 | 11.30 | 10.68 | 17.32 | 14.77 | 50.85 | 51.36 | 5.74 | 5.49 |
| d (52-53) |  |  |  |  |  |  |  |  |  |  |
| Sep 1 | 1.43 | 1.80 | 9.34 | 9.02 | 6.58 | 5.11 | 44.13 | 42.08 | 4.12 | 3.79 |
| Oct 1 | 1.06 | 1.26 | 9.76 | 9.01 | 9.38 | 7.26 | 49.20 | 49.93 | 4.80 | 4.50 |
| Nov 1 | 0.88 | 0.93 | 10.72 | 9.52 | 12.45 | 10.43 | 52.39 | 53.35 | 5.61 | 5.08 |
| Dec 1 | 0.77 | 0.83 | 11.68 | 10.58 | 15.52 | 12.94 | 51.94 | 51.97 | 6.07 | 5.50 |
| (150-144) |  |  |  |  |  |  |  |  |  |  |
| Sep 1 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Oct 1 | 2.01 | 2.43 | 8.92 | 8.64 | 4.47 | 3.59 | 46.28 | 46.50 | 4.13 | 4.02 |
| Nov 1 | 1.63 | 1.92 | 9.55 | 8.84 | 5.91 | 4.64 | 51.07 | 50.23 | 4.88 | 4.44 |
| Dec 1 | 1.40 | 1.56 | 10.38 | 9.73 | 7.53 | 6.29 | 53.45 | 53.16 | 5.55 | 5.17 |

Grapefruit
White Seedless (44-38)

| Sep 1 | 1.55 | 1.71 | 9.52 | 9.60 | 6.16 | 5.61 | 35.11 | 32.50 | 3.34 | 3.12 |
| :--- | ---: | :--- | ---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Oct 1 | 1.40 | 1.42 | 9.74 | 9.27 | 7.00 | 6.54 | 38.98 | 38.79 | 3.79 | 3.60 |
| Nov 1 | 1.26 | 1.28 | 9.96 | 9.32 | 7.95 | 7.33 | 42.65 | 43.00 | 4.25 | 4.01 |
| Dec 1 | 1.20 | 1.28 | 10.01 | 9.59 | 8.40 | 7.53 | 44.47 | 44.33 | 4.45 | 4.25 |
| lored Seedless $(39-41)$ |  |  |  |  |  |  |  |  |  |  |
| Sep 1 | 1.50 | 1.66 | 9.84 | 9.75 | 6.55 | 5.88 | 35.24 | 33.89 | 3.46 | 3.31 |
| Oct 1 | 1.34 | 1.36 | 1.12 | 9.44 | 7.60 | 6.96 | 40.20 | 40.50 | 4.07 | 3.83 |
| Nov 1 | 1.23 | 1.28 | 10.41 | 9.54 | 8.49 | 7.50 | 43.20 | 43.16 | 4.50 | 4.12 |
| Dec 1 | 1.12 | 1.21 | 10.47 | 9.87 | 9.39 | 8.19 | 45.65 | 46.25 | 4.78 | 4.56 |

NOTICE: All samples were run through an FMC 091 machine using mechanical pressure only. This machine utilizes a .040 short strainer and standard $5 / 8$-inch orifice tube. The beam settings are also identical to past tests and no restrictors are used.

## Maturity Test Averages by Areas, December 1, 2004

| Fruit type | Groves <br> sampled | Acid | Solids (Brix) | Ratio | Unfinished juice per box | Solids per box |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number | Percent | Percent |  | Pounds | Pounds |
| Oranges: |  |  |  |  |  |  |
| Early |  |  |  |  |  |  |
| Indian River Dist. | 9 | 0.75 | 10.33 | 13.81 | 48.78 | 5.04 |
| Other Areas | 99 | 0.73 | 10.71 | 14.85 | 51.59 | 5.53 |
| Midseason |  |  |  |  |  |  |
| Indian River Dist. | 10 | 0.84 | 10.16 | 12.21 | 53.42 | 5.43 |
| Other Areas | 43 | 0.82 | 10.68 | 13.11 | 51.63 | 5.51 |
| Late |  |  |  |  |  |  |
| Indian River Dist. | 23 | 1.55 | 9.56 | 6.22 | 53.86 | 5.15 |
| Other Areas | 121 | 1.57 | 9.76 | 6.30 | 53.02 | 5.17 |
| Grapefruit: |  |  |  |  |  |  |
| White Seedless |  |  |  |  |  |  |
| Indian River Dist. | 30 | 1.29 | 9.61 | 7.50 | 44.24 | 4.25 |
| Other Areas | 8 | 1.25 | 9.52 | 7.66 | 44.67 | 4.25 |
| Colored Seedless |  |  |  |  |  |  |
| Indian River Dist. | 32 | 1.21 | 9.82 | 8.16 | 46.57 | 4.57 |
| Other Areas | 9 | 1.22 | 10.03 | 8.31 | 45.12 | 4.53 |

## FRUIT SIZE COMPARISONS BY TYPES TO PREVIOUS SEASONS

Size frequency distributions developed from the November size survey are shown in the following table. The distributions are by percent of fruit falling within the size range of each $4 / 5$-bushel container. These frequency distributions relate to fruit from regular bloom and exclude summer bloom in all years.

Florida Citrus: Size frequency distributions from November measurements

| Type of fruit and size in 4/5-bushel containers | 2002 | 2003 | 2004 |
| :---: | :---: | :---: | :---: |
| Early and midseason oranges: (excluding Navels) |  |  |  |
|  |  |  |  |
| 64 and larger | 3.9 | 3.1 | 0.9 |
| 80 | 16.2 | 11.9 | 5.7 |
| 100 | 36.1 | 31.9 | 25.0 |
| 125 | 29.3 | 33.7 | 38.9 |
| 163 and smaller | 14.5 | 19.4 | 29.5 |
| Navel oranges: |  |  |  |
| 64 and larger | 56.2 | 72.7 | 51.6 |
| 80 | 29.9 | 22.4 | 35.0 |
| 100 | 10.9 | 4.0 | 10.1 |
| 125 | 2.5 | 0.7 | 2.7 |
| 163 and smaller | 0.5 | 0.2 | 0.6 |
| White seedless grapefruit: |  |  |  |
| 32 and larger | 19.2 | 13.4 | 13.1 |
| 36 | 19.8 | 17.2 | 17.2 |
| 40 | 24.7 | 23.7 | 26.0 |
| 48 | 16.6 | 17.0 | 17.9 |
| 56 | 9.5 | 10.6 | 11.5 |
| 63 and smaller | 10.2 | 18.1 | 14.3 |
| Colored seedless grapefruit: |  |  |  |
| 32 and larger | 12.4 | 8.2 | 6.5 |
| 36 | 16.9 | 12.1 | 12.2 |
| 40 | 25.6 | 22.5 | 22.2 |
| 48 | 18.7 | 21.7 | 22.8 |
| 56 | 11.4 | 14.6 | 15.1 |
| 63 and smaller | 15.0 | 20.9 | 21.2 |
| Sunburst tangerines: |  |  |  |
| 80 and larger | 23.3 | 15.6 | 9.2 |
| 100 | 35.3 | 25.3 | 22.8 |
| 120 | 26.1 | 31.9 | 26.4 |
| 176 | 8.9 | 13.9 | 15.8 |
| 210 and smaller | 6.4 | 13.3 | 25.8 |
| Honey tangerines: |  |  |  |
| 80 and larger | 12.3 | 24.5 | 6.9 |
| 100 | 29.0 | 35.6 | 21.2 |
| 120 | 31.6 | 22.6 | 32.3 |
| 176 | 12.7 | 9.1 | 15.2 |
| 210 and smaller | 14.4 | 8.2 | 24.4 |
| Temples: |  |  |  |
| 80 and larger | 43.0 | 17.1 | 10.4 |
| 100 | 39.3 | 37.2 | 40.0 |
| 120 | 12.7 | 30.2 | 39.4 |
| 156 and smaller | 5.0 | 15.5 | 10.2 |
| Tangelos: |  |  |  |
| 80 and larger | 46.4 | 57.4 | 18.2 |
| 100 | 31.4 | 26.5 | 28.4 |
| 120 | 17.0 | 9.8 | 33.4 |
| 156 and smaller | 5.2 | 6.3 | 20.0 |

The charts below describe the relationships of the fruit size measurements with those taken in the previous year. The diameter measurements shown are the minimum values of each eighth inch range, except for the smallest values.

CHART 1: Early and midseason oranges (excluding Navels) size frequency by diameter from November measurements.

## Diameter

(Inches)


CHART 2: White seedless grapefruit size frequency by diameter from November measurements.



[^0]:    ${ }^{1 /}$ Fallglo and Sunburst varieties. ${ }^{2 /}$ Includes tangelos.

